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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,749	01/17/2007	Bernd Nebendahl	20030361-02	2031

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EXAMINER

PAN, MICHAEL

ART UNIT	PAPER NUMBER
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2828

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,749	Applicant(s) NEBENDAHL ET AL.	
	Examiner MICHAEL PAN	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/23/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 13 is objected to because of the following informalities: It is believed that a typographical error was made. Examiner suggests claim 13 be written as "The laser unit of claim 12, comprising one or more of the following features: the second beam represents an output beam of the laser unit, the laser gain medium comprises at least one of: an amplifying waveguide, a doped crystal or glass, a gas cell, a dye cell, the reflecting dispersion device comprises at least one of: a grating, a dispersion prism, a reflecting device such as a mirror or a dihedral prism".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 10-11 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board

of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 10 recites the broad recitation "a modulator adapted for modulating the reflection angle of the reflecting dispersion device with a modulation signal", and the claim also recites "preferably modulating around a center value" which is the narrower statement of the range/limitation.

Regarding claim 11, claim 11 recites the limitation "an analysis unit". Is this the same analysis unit as recited in claim 1 or a different analysis unit (Second analysis unit)?

Regarding claim 15, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2828

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-9, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2001/0026568 (Asami) in view of US 5054028 (Esherick et al.).

As for claim 1 and 12, the primary reference (e.g. Fig. 1) shows a control unit adapted for controlling a laser unit, wherein: the laser unit comprises a laser gain medium (1) and an external cavity having a reflecting dispersion device (2/3), having a reflection angle dependent on the wavelength, towards the laser gain medium ([0065]).

However, the primary reference does not explicitly show the control unit comprising: an angle unit adapted for providing an angular variation signal indicative of an angular variation of the second beam, and an analysis unit adapted for receiving the angular variation signal and controlling the reflection angle of the reflecting dispersion device dependent on the angular variation signal.

In the same field of endeavor, Esherick et al. (e.g. Fig. 1) teaches the control unit comprising: an angle unit (11) adapted for providing an angular variation signal indicative of an angular variation of the light beam, and an analysis unit (8).

It would have been obvious to one of ordinary skill in the art, at the time of invention was made, to have included the angular variation detector as taught by Esherick, with Asami's device for the benefit of stabilizing the optical cavity thereby permitting long-term single longitudinal mode operation (Col. 1, lines 48-52).

Claim 1 and 12 recited further limitations; however, the further stated limitations will not be considered, since it has been held that the recitation that an element is "adapted for" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As for claim 2, Esherick et al. teaches that the angle unit comprises an angle detection unit (Fig. 1, 11).

Claim 2 further states “an angle detection unit adapted for detecting the angular variation of the second beam and deriving the angular variation signal in correspondence with the detected angular variation”.

The further stated limitations will not considered, since it has been held that the recitation that an element is “adapted for” perform a function is not a positive limitation but only require the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As for claim 3, Esherick et al. teaches that the angle detection unit comprises a position dependent detector (Col. 3, lines 12-16).

Claim 3 further states “dependent detector adapted for receiving the second beam, or a part thereof, and detecting the angular variation from a lateral variation of the received beam detected along the position dependent detector”.

The further stated limitations will not considered, since it has been held that the recitation that an element is “adapted for” perform a function is not a positive limitation but only require the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As for claim 4, Esherick et al. teaches that the angle detection unit comprises two power detectors each receiving a portion of the light d beam, wherein the ratio of the two portions depends on the angular variation of the second beam (Col. 3, lines 12-26).

As for claim 5, Esherick et al. teaches a beam splitter (Fig. 1, 10).

Claim 5 further states “beam splitter adapted for receiving and splitting the second beam into one portion to be provided to the angle unit and into another portion to be provided to a coupling unit adapted for coupling out the received portion of the second beam, preferably into at least one of an optical fiber and optical signal carrier”.

The further stated limitations will not considered, since it has been held that the recitation that an element is “adapted for” perform a function is not a positive limitation but only require the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As for claims 6-9, limitations recited in claims 6-9 will not considered, since it has been held that the recitation that an element is “adapted for” perform a function is not a positive limitation but only require the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As for claim 13, the primary reference shows the second beam represents an output beam of the laser unit ([0066]).

As for claim 14, since Esherick et al. and Asami disclose the product, it is inherent product by process for performing a method as recited in the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pan whose telephone number is (571) 270-1867. The examiner can normally be reached on Monday-Friday 7:30 AM - 5:00 PM Eastern Standard Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. P./
Examiner, Art Unit 2828

/Minsun Harvey/

Supervisory Patent Examiner, Art Unit 2828

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